

**REMARKS**

Claims 1, 3-16, 18, and 19 are pending in this application.

Applicants have amended claims 1, 3, 6, 7, 9, 15, 16, and 19, and have canceled claims 2, 17, and 20. These changes do not introduce any new matter.

Applicants appreciate the Examiner's prompt indication that claims 10 and 14 define allowable subject matter. Applicants' responses to the issues raised in the Office Action are set forth below.

Applicants respectfully request reconsideration of the rejection of claims 7-14 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants have amended claim 7 to recite "clamping forces" instead of "the clamping forces." Regarding claims 9 and 10, Applicants have amended claim 9 to clarify that the plurality of fingers extends from an upper surface of the upper clamp plate. Applicants submit that claims 7-14 now satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph, and request that the rejection of these claims thereunder be withdrawn.

Applicants respectfully request reconsideration of the rejection of claims 1-6 and 15-20 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over *Jensen et al.* (U.S. Patent No. 5,862,560). As will be explained below, the *Jensen et al.* reference neither anticipates nor renders obvious the subject matter defined in independent claims 1, 15, and 19, as amended herein.

Applicants have amended each of independent claims 1, 15, and 19 to recite O-rings. In particular, Applicants have amended claim 1 to specify that the edge roller assembly includes first and second O-rings. Applicants have amended claim 15 to specify that the method for contacting an edge of a substrate includes clamping a pair of O-rings together in an opposing relationship such that outer surfaces thereof define a groove. Applicants have amended claim 19 to specify that the transport system includes a pair of edge roller

assemblies, with each of the edge roller assemblies including first and second O-rings held together in an opposing relationship such that outer surfaces thereof define a groove for receiving an edge of a wafer.

The *Jensen et al.* reference discloses a roller for rotating wafers in a double-sided scrubber. The roller has a one-piece configuration that is formed by molding or machining (see column 4, lines 2-5, and, for example, Figure 3A). The outer edge of the roller has a groove formed therein for receiving an edge of a wafer. In addition, the outer edge of the roller is provided with treads for channeling liquids away from the groove.

Considering first the issue of anticipation, the *Jensen et al.* reference does not disclose a roller that uses O-rings for contacting an edge of a wafer. Thus, for at least this reason, claims 1, 15, and 19 are patentable under 35 U.S.C. § 102(b) over *Jensen et al.*

Turning to the issue of obviousness, the Examiner alleges that Figure 5A of the *Jensen et al.* reference shows a roller formed in two parts. Applicants respectfully traverse the Examiner's characterization of the *Jensen et al.* reference in this regard. In contrast with the Examiner's characterization, Figure 5A of the *Jensen et al.* reference shows two rollers (530 and 531) being used to rotate a wafer in a double-sided scrubber. Each of these rollers has the same configuration (one-piece, grooves, treads) described earlier in the specification, e.g., in connection with the description of Figure 3A. As such, Applicants submit that there is no reasonable basis for the Examiner's allegation that the *Jensen et al.* reference teaches a two-piece roller configuration.

In response to the Examiner's assertion that it is merely a matter of routine skill to form an integral structure into various parts, Applicants note that the claimed subject matter does not correspond to the roller of *Jensen et al.* split into two pieces. Instead, as discussed above, the subject matter defined in claims 1, 15, and 19 involves the use of a pair of O-rings. The *Jensen et al.* reference does not mention the use of O-rings. Moreover, the specific

groove and tread configurations described in the *Jensen et al.* reference would not have motivated one having ordinary skill in the art to formulate a roller using O-rings because such a roller would not have the specific groove and tread configurations described in the *Jensen et al.* reference. Thus, the *Jensen et al.* reference does not support the Examiner's assertion that the claimed subject matter would have been obvious to one having ordinary skill in the art. Thus, claims 1, 15, and 19 are patentable under 35 U.S.C. § 103(a) over *Jensen et al.*

In light of the foregoing discussion, the *Jensen et al.* reference neither anticipates nor renders obvious the subject matter defined in independent claims 1, 15, and 19. As such, claims 1, 15, and 19 are patentable under 35 U.S.C. §§ 102(b) and 103(a) over *Jensen et al.* Each of claims 3-6 ultimately depends from claim 1, and each of claims 16 and 18 depends from claim 15. Thus, claims 3-6, 16, and 18 are likewise patentable under 35 U.S.C. §§ 102(b) and 103(a) over *Jensen et al.* for at least the same reasons set forth for the applicable independent claim.

Applicants respectfully request reconsideration of the rejection of claims 7-9 and 11-13 under 35 U.S.C. § 103(a) as being unpatentable over *Jensen et al.* As will be explained below, the *Jensen et al.* reference does not raise a *prima facie* case of obviousness against independent claim 7.

In support of the obviousness rejection, the Examiner asserts that "Jensen et al teach that the rollers as claimed were conventional in the art. See entire document, especially Figures 2 and 5A and the related description." Office Action at page 4. Applicants respectfully traverse the Examiner's characterization of the *Jensen et al.* reference relative to claim 7. The roller shown in prior art Figure 2 is a one-piece roller, which is presumably manufactured by either molding or machining, and which includes a groove for receiving an edge of a wafer. This roller corresponds to the conventional roller discussed in the "Background of the Invention" section of Applicants' specification. See Applicants'

specification at page 2, lines 12-17. As such, nothing in Figure 2 or the related description teaches an edge roller assembly including upper and lower clamp plates and first and second grip rings as specified in claim 7. Regarding Figure 5A, as discussed above in connection with independent claims 1 and 15, nothing in this figure relates to a two-piece roller configuration. As such, similar to Figure 2, nothing in Figure 5A teaches an edge roller assembly including upper and lower clamp plates and first and second grip rings as specified in claim 7. Thus, for at least the foregoing reasons, the *Jensen et al.* reference does not raise a *prima facie* case of obviousness against the subject matter defined in claim 7.

Accordingly, claim 7 is patentable under 35 U.S.C. § 103(a) over *Jensen et al.* Each of claims 8, 9, and 11-13 ultimately depends from claim 7. Thus, claims 8, 9, and 11-13 are likewise patentable under 35 U.S.C. § 103(a) over *Jensen et al.* for at least the same reasons set forth above regarding claim 7.

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of claims 1, 3-16, 18, and 19, as amended herein, and submit that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6902. If any additional fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. LAM2P135.CIP).

Respectfully submitted,  
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